

# Is the Shadowing Method Effective in Improving Accentedness and Intelligibility?

NAKAYAMA Tomokazu

## Abstract

This study reports the results of a preliminary study on the effectiveness of the shadowing method for the pronunciation improvement of novice learners (A1) in Japan. Dlaska and Krekeler (2013) investigated the impact of implicit and explicit feedback on learners' pronunciation. Based on their findings, this study investigated the effectiveness of the shadowing method as an implicit feedback method by comparing the quality of participants' two text recordings (before and after intervention) from two perspectives: accentedness and intelligibility. The analysis suggests that accentedness improves compared to intelligibility. However, further investigation is required to draw conclusions by expanding the sample size.

*Keywords:* intelligibility, accentedness, shadowing, pronunciation

This study investigates the effectiveness of the shadowing method to improve the pronunciation of novice learners (A1) in Japan. Dlaska and Krekeler (2013) investigated the impacts of implicit and explicit feedback on learners' pronunciation. Based on their findings, this study investigated the effectiveness of the shadowing method as an implicit feedback method by comparing the quality of participants' two text recordings (before and after intervention) from two perspectives—accentedness and intelligibility. This study reports on the results of a preliminary study on this matter.

## Teaching Pronunciation in ELT and the Shadowing Method

Teaching pronunciation in ELT (English Language Teaching) has recently been garnering a great deal of attention among ELT researchers. Among this research, shadowing is one of the methods that has been gaining attention among researchers

in Japan and empirical studies have been conducted to investigate the effectiveness of shadowing for improving pronunciation in Japan (e.g., Okada, 2002; Kusumoto, 2015). According to Tamai (2005), shadowing refers to “listening in which the learners track what [they have] heard in speech and repeat it as accurately as possible while listening attentively to the incoming information” (p. 34). However, two issues remain to be resolved. The first issue relates to the nature of research. That is, “isolating the effect of the pronunciation instruction from other input” (Dlaska & Krekeler, 2005 p. 27). Since learners receive input not only in the classroom but also outside of the classroom, it is quite difficult to say that the outcome of research is really attained only by the instruction learners receive in the classroom. The other issue relates to the measurement of the effect of instruction. Improvement in pronunciation has been measured by two methods in previous research. One is simply to compare quality of pronunciation before and after instruction by synthesizing certain computer software. This method is quite useful since software such as *Praat* not only provides the results numerically but also visualizes the analysis using, for example, graphs. Thus, the results can be easily compared with models. For example, Kusumoto (2015) compared pre- and post- reading aloud utterances utilizing computer software, and found that shadowing training can improve learners’ pronunciation. However, this method can only relate the impact of instruction; it does not provide information on how much listeners perceive improvements. One of the major reasons for pronunciation training is to improve learners’ intelligibility; in other words, how easily listeners can identify a speaker’s utterances. Intelligibility is critical, especially in communication between non-native speakers (NNSs) and native speakers (NSs) and among NNSs (Richards, 2015, p. 18).

### **Impact of Implicit and Explicit Feedback on Pronunciation Learning**

Regarding improvement of intelligibility, Dlaska and Krekeler (2013) compared the impact on pronunciation improvement of implicit and explicit feedback. The participants, comprising 169 adult intermediate level learners of German (B1/B2 level CEFR) from different L1 backgrounds (mainly Chinese and Spanish), were evenly divided into the listening only group (implicit feedback group) and the group that receives individual corrective feedback (ICF group). The listening only group received implicit feedback by listening to their recorded voices and listening to the model (recast). On the other hand, the ICF group received explicit feedback on their

pronunciation from five experienced teachers in addition to listening to their own recordings and to the model. The raters compared the quality of the two recordings recorded before and after intervention and analyzed dichotomous data using the odds ratio. The analysis demonstrated that ICF is more effective for improving intelligibility than the listening only group.

### **Significance and Implications of Dlasaka and Krekeler (2013)**

Dlasaka and Krekeler's (2013) study is significant in respect of the following two findings. The first is that it has provided the possibility of improving pronunciation by explicit feedback from instructors. The second is that it utilized the analysis method of the odds ratio instead of standardized measures of mean differences to provide more in-depth analysis.

However, to apply their findings in general ELT settings in Japan, two questions arise. The first question relates to the proficiency levels of participants. Dlasaka and Krekeler (2013) used B1 or B2 level learners according to the CEFR scale as participants. Above B1 level, learners are considered to be "independent users" of the target language and their levels are rather higher than average learners in Japan. According to Tono (2013), approximately 80 percent of Japanese EL learners are at A1 or A2 level. The A level learner is considered a "basic speaker" according to the CEFR scale and is the lowest category therein. In short, before applying the findings of Dlasaka and Krekeler (2013), it is necessary to replicate their study in a different context. The second question regards the validity of the method of implicit feedback applied in the study. Dlasaka and Krekeler (2013) adopted the simple method: reading aloud and listening to their voice followed by the model. However, as described earlier, shadowing has recently been capturing the attention of researchers as a way to provide implicit feedback on pronunciation teaching (e.g., Okada, 2002; Kusumoto, 2015). It implies the necessity to compare the shadowing method as implicit feedback with the ICF method adopted by Dlasaka and Krekeler (2013).

Based on the above, as a first step, this study will compare the effectiveness of the shadowing method in respect of the following points—accentedness and intelligibility. "Accentedness" refers to "how different a pattern of speech sounds compared to the local variety" (Derwing & Monroe, 2009). In other words, accentedness refers to the differences in a learner's pronunciation compared to the model speaker. Intelligibility refers to identifying an expression, which represents "a vital building block for

further understanding” (Jordan, 2011, p. 83). Thus, this study simply investigates the effectiveness of short-term shadowing training with implicit feedback in terms of accentedness and intelligibility.

## **Objective of this Study**

This study aims to investigate whether a short-term shadowing training improves the intelligibility and accentedness of trainees’ spoken output.

## **Method**

### **Participants**

Sixteen male Japanese students (aged between 18 and 19) participated in this study. All participants were Japanese with no experience of studying overseas. The participants were taking the author’s English class, which mainly targets improving listening skills and is part of the requirement for their graduation. This study was conducted as part of class activities in June 2015.

### **Materials**

**Song.** An English song entitled “As long as you love me” composed by Martin Karl Sandberg in 1997 was chosen as the material.

**Audio.** The audio file (MP3) of the song was prepared and saved onto 16 IC recorders.

**Transcript.** The transcript of the song was printed on A4-sized paper as a handout. This handout was used to allow participants to check their performance in shadowing and reading aloud the transcript.

### **Task**

Participants were asked to shadow the speech and to check their understanding by comparing the written transcript of the speech with their shadowed voices. The participants were asked to repeat shadowing the song six times.

## Procedure

The procedure had four phases: preparation, pretest, shadowing training, and posttest. A summary of the procedure is provided in Table 1.

Table 1 *Procedure*

1. Preparation
2. First recording of reading aloud
3. Shadowing training
4. Second recording of reading aloud

**Preparation.** First, participants were seated at such a distance from each other that allowed them not to be disturbed by other participants' voices. Then, each participant was given two IC recorders (one for recording, and the other for listening to the song). The author explained how to use the IC recorders and had each student record their names and student ID numbers to ensure the device was working properly. He gave each student two written transcripts of the song. He also asked the participants to write their names and the number of the IC recorders, as labeled, at the top of each handout. He explained to the participants that one was to be used for checking their shadowing performance and the other for reading aloud.

**First recording of reading aloud.** After the preparation phase, each participant was asked to read aloud the transcript of the song and record their voices onto the other IC recorder.

**Shadowing training.** Then, each participant was asked to shadow the song recorded on the IC recorder and record their shadowed voices on the other IC recorder. The researcher then had each participant listen to the recorded voice and check it against the written transcript, asking them to underline with pencil the words that were not properly shadowed or the words that were different from their understanding. Each participant was asked to follow the process above six times.

**Second recording of reading aloud.** After the shadowing training phase, each participant was asked to read aloud the transcript of the song and record their voices onto the other IC recorder.

## Rating

The rating procedure was that followed by Dlasaka and Krekeler (2013). Two raters were chosen for this study. One was a Japanese male English instructor who has rich overseas experience with a good command of English and who has been teaching Japanese students for more than 20 years. The other was a Malaysian female English instructor who also has rich experience teaching Japanese students in Japan. Both raters were familiar with the song used in this study. Sixteen pairs of recordings were prepared and the raters were asked to rate the recordings using the following two criteria.

**Intelligibility.** The raters were asked to rate “0” if the second recording of each pair did not change in intelligibility and to rate “1” if the second recording of each pair was easier to understand than the first recording. The raters did not know which recording had been recorded after training in each pair since the recordings were placed at random.

**Accentedness.** The raters were asked to rate “0” if the second recording of each pair did not change in accentedness and to rate “1” if the second recording of each pair had a better quality of accentedness. The raters did not know which recording had been recorded after training in each pair since the recordings were placed at random.

## Results

Table 2 *Number of Participants (N=16) who Improved Intelligibility and Accentedness*

	Improved	Not improved
Accentedness	18(56%)	14(44%)
Intelligibility	14(44%)	18(56%)

The raters found that 18 out of 32 (56%) of the second recordings improved in accentedness. On the other hand, the raters found that only 14 out of 32 (44%) of the second recordings improved in intelligibility. The results are shown in Table 2. Following Dlasaka and Krekeler (2013), the odds ratios were used for further analysis. The results of the odds ratios, probabilities, and risk ratios are shown in Table 3.

Table 3 *2x2 Tables of Accentedness and Intelligibility With Probabilities*

	Accentedness	Intelligibility	Differences	Ratio of larger to smaller
Improvement	$A=0.56$	$C=0.44$	$A-C=0.12$	$A/C=1.28$
No improvement	$B=0.44$	$D=0.56$	$B-D=-0.12$	$D/B=1.28$
Odds	$A/B=1.28$	$C/D=0.79$		$(A/D)/(C/B)=1.62$

The probability of shadowing training having a positive impact on accentedness was .56. This means that 56 out of 100 learners had positive effects on accentedness. On the other hand, the probability of shadowing training having a positive impact on intelligibility was .44. This means that 44 out of 100 learners had positive effects on intelligibility. The difference between the two (A-C) was .12. The relative likelihood of shadowing having a positive impact (A/C) was 1.28, meaning that additional shadowing training is 1.28 times more likely to yield an improvement in accentedness than intelligibility. Furthermore, the odds ratio was 1.62, which means that the odds of additional shadowing training was 1.62 times more likely to yield improvement in accentedness than intelligibility. However, since over 3.00 is necessary to show a strong relationship between variables (Lieberman, 2005, p. 342, cited in Dlasaka & Krekeler, 2013), further investigation with an appropriate sample size is necessary to verify the results.

## Discussion

This study investigated the effectiveness of the shadowing method for pronunciation improvement in EFL novice learners (A1) in Japan and reported the results of a preliminary study. Dlasaka and Krekeler (2013) investigated the impact of implicit and explicit feedback on learners' pronunciation. Based on their findings, this study compared the quality of participants' two text recordings (before and after intervention) from two perspectives: accentedness and intelligibility. The analysis of this preliminary experiment suggested the possibility of improving accentedness rather than intelligibility. However, another study with appropriate sample size is necessary to verify the results.

There are two significant implications of this study. First, this study suggests that intelligibility might be more difficult to change than accentedness. The model applied in this study is for native speakers of English who have a different phonological system

from the learners' L1. Japanese is an open syllable language with mora, in which each syllable receives equal stress when words are pronounced. On the other hand, English is a stress-timed rhythm language in which stressed syllables occur at approximately the same intervals; the time taken to produce an utterance scales with the number of stressed syllables it contains. Adjusting accentedness to the native speaker model seems quite difficult for speakers of an L1 with a different phonological system. However, the results of this preliminary study suggest that shadowing methods might be able to improve accentedness. The second significance of this study is that it suggests that accentedness might be an independent factor in intelligibility. It provides new insight into how to improve learners' pronunciation.

### **Future Research**

This article reported a preliminary study on the effectiveness of the shadowing method in the pronunciation improvement of EFL novice learners (A1) in Japan. Further investigation is required by expanding the sample size of participants. It is also necessary to compare other implicit learning methods such as reading aloud with shadowing methods.



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